

retainer ring received in the outlet passageway and normally retaining the first seal against the valve ball in the body, the seals and retainer ring having colinear axes, and the body having mounting holes in the flanges, apparatus for replacing the [second] first seal and comprising:

first and second arms pivotally mounted to the base, each of the arms being pivotally movable independent of the other arm and each having active and rest positions, and each of the arms having a distal end with a recess therein positionable at said axis when the respective arm is pivoted to its active position;

a screw having lower and upper ends and a longitudinal axis colinear with said axes, and having a pad at the lower end and having a tool receiver at the upper end and having two nuts threadedly received thereon and operable to load the arms at the recesses when the arms are in their active positions, the recesses on the distal ends of the arms being sized to receive the screw therein.

2. (Amended) A method of removing the first seal from the ball valve assembly of claim 1 and comprising the steps of:

attaching the mounting face of the base to the outlet face of the valve body;
placing the lower end of the screw on the valve ball;
placing the distal end of the first arm directly above the ball;
placing the recess [in] of the distal end of the first arm in position receiving the screw in the recess;

moving the first bearing against the bottom of the distal end of the first arm at the screw;

turning the nut while holding the screw to advance the nut upward on the screw to
jam the screw pad against the ball and thereby jam the ball against the second seal to seal
closed the inlet passageway;

~~removing the seal retainer ring from the valve body;~~

removing the first seal from the valve body;

placing the distal end of the second arm in position under the retainer ring and
above the ball with the recess of the distal end of the second arm in position receiving the
screw in said recess;

turning the second nut while holding the screw to advance the second nut upward
on the screw to continue to jam the screw pad against the ball and thereby cooperate with
the first arm and screw to jam the ball against the second seal to maintain second seal
closure of the inlet passageway;

loosening the first nut enough to enable movement of the distal end of the first
arm away from the screw while the second arm and screw continue to jam the ball against
the second seal;

and removal of the retainer ring from the screw.

5. (Amended) The method of claim 2 and further comprising the step of:
removing the first seal from around the screw.

6. (Amended) The method of claim 5 and further comprising the steps of:
installing a replacement seal on the screw above the distal end of the second arm
while the second arm continues to jam the ball against the second seal;

re-installing the retainer ring on the screw above the replacement seal;
returning the distal end of the first arm into position over the ball and adjacent the screw and above the replacement seal and the retainer ring;

turning the first nut while holding the screw to advance the first nut upward on the screw to again enable the first arm to jam the screw pad against the ball and thereby cooperate with the second arm and screw to jam the ball against the second seal to continue to seal closed the inlet passageway;

loosen the second nut [enough to enable movement of] and move the distal end of the second arm away from the screw;

lower the replacement seal into position in the valve body against the valve ball;
and

return the retainer ring into position in the valve body against the replacement seal and sealingly engage the replacement seal with the valve ball.

REMARKS

The Office Action has been considered. The claims were rejected under Section 112. The independent claim and several of the others have been amended to improve their form. It is believed that claim 1, 2, 5 and 6 now are in good form and clearly define the invention. Reconsideration is requested.

At the outset, it is noted that the Office Action asks how the removal tool removes the second seal. The tool is not intended to facilitate removal of the second seal. It is only the first seal to which the present invention is addressed. The reason for this is stated on page 1 of the Specification. In those applications where the direction of flow is typically in one direction through the valve, it is the downstream seal which is loaded by